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NOTICE OF ALLOWANCE AND FEE(S) DUE

EXAMINER 95567 7590 12/09/2010 NGUYEN, TU MINH RatnerPrestia (JM) P.O. Box 980 PAPER NUMBER ARTHNIT

> 3748 DATE MAILED: 12/09/2010

> > AA 1675 US

APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. Martyn Vincent Twigg

TITLE OF INVENTION: COMPRESSION IGNITION ENGINE AND EXHAUST SYSTEM THEREFOR

10/07/2005

APPLN, TYPE SMALL ENTITY ISSUE FEE DUE PUBLICATION FEE DUE PREV. PAID ISSUE FEE TOTAL FEE(S) DUE DATE DUE nonprovisional NO \$1510 \$300 \$1810 03/09/2011

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

Valley Forge, PA 19482-0980

10/527.634

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown

B. If the status above is to be removed, check box 5b on Part B -Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

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indicated unless correct maintenance fee notifica	ed below or directed otl	ng the Patent, advance of nerwise in Block 1, by (a) specifying a new co	rrespondence addre	ss; and/o	or (b) indicating a sep	arate "FEE ADDRESS" for	
CURRENT CORRESPOND	j	Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.						
P.O. Box 980 Valley Forge, P.	JM)	v2010	!	hereby certify that States Postal Service addressed to the M ransmitted to the U	ertificat this Fee with su ail Stop SPTO (5	te of Mailing or Trans (s) Transmittal is bein ufficient postage for fir ISSUE FEE address 71) 273-2885, on the c	smission g deposited with the United st class mail in an envelope above, or being facsimile date indicated below.	
			ĺ				(Depositor's name)	
							(Signature)	
							(Date)	
APPLICATION NO.	FILING DATE		FIRST NAMED INVENT	OR	ATT	ORNEY DOCKET NO.	CONFIRMATION NO.	
10/527,634 TITLE OF INVENTION	10/07/2005 COMPRESSION IGN	ITION ENGINE AND E	Martyn Vincent Twi KHAUST SYSTEM TI			AA 1675 US	2199	
APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE D	E PREV. PAID IS	UE FEE	TOTAL FEE(S) DUE	DATE DUE	
nonprovisional	NO	\$1510	\$300	\$0		\$1810	03/09/2011	
EXAM	IINER	ART UNIT	CLASS-SUBCLASS	7				
NGUYEN,	TU MINH	3748	060-295000	_				
"Fee Address" ind PTO/SB/47; Rev 03- Number is required. 3. ASSIGNEE NAME A	ondence address (or Cha B/122) attached. ication (or "Fee Address 22 or more recent) attach ND RESIDENCE DAT. less an assignee is ident h in 37 CFR 3.11. Comj	inge of Correspondence "Indication form and: Use of a Customer A TO BE PRINTED ON		o to 3 registered pa natively, ngle firm (having a or agent) and the nattorneys or agents, be printed. type) e patent. If an assi an assignment.	s a mem ames of If no nai	ber a 2up to 3	document has been filed for	
Please check the appropr	iate assignee category or	categories (will not be p	rinted on the patent):	Individual	Corpora	tion or other private gr	oup entity Government	
4a. The following fee(s) Issue Fee Publication Fee () Advance Order - 5. Change in Entity Sta	wo small entity discount p	permitted)	b. Payment of Fee(s): (I A check is enclose Payment by credit The Director is her overpayment, to D	d. card. Form PTO-20	38 is at	ached.	shown above) eficiency, or credit any an extra copy of this form).	
	s SMALL ENTITY state		☐ b. Applicant is no	longer claiming SM	ALLEN	TTTY status. See 37 C	FR 1.27(g)(2).	
NOTE: The Issue Fee an interest as shown by the	d Publication Fee (if req records of the United Sta	uired) will not be accepte tes Patent and Trademark	d from anyone other the Office.	an the applicant; a r	gistered	attorney or agent; or t	he assignee or other party in	
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Typed or printed name			Registration No.					
This collection of inform an application. Confiden submitting the complete this form and/or suggest Box 1450, Alexandria, V Alexandria, Virginia 223	nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this bu 'irginia 22313-1450. DC k13-1450.	CFR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the ONOT SEND FEES OR	on is required to obtain 1.14. This collection is depending upon the in e Chief Information Of COMPLETED FORMS	or retain a benefit b estimated to take 1 idividual case. Any ficer, U.S. Patent as TO THIS ADDRE	y the pul 2 minute commer nd Trade SS. SEN	blic which is to file (an es to complete, including the on the amount of ti mark Office, U.S. Dep ID TO: Commissioner	d by the USPTO to process) ng gathering, preparing, and me you require to complete sartment of Commerce, P.O. for Patents, P.O. Box 1450,	

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PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



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APPLICATION N	Ю.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/527,634		10/07/2005	Martyn Vincent Twigg	AA 1675 US 2199		
95567	7590	12/09/2010	EXAMINER			
RatnerPrest	ia (JM)		NGUYEN, TU MINH			
P.O. Box 980				ART UNIT	PAPER NUMBER	
Valley Forge	, PA 19	482-0980	3748			
			DATE MAILED: 12/09/2010			

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Application No. Applicant(s) 10/527.634 TWIGG ET AL. Notice of Allowability Examiner Art Unit THM NGUYEN 3748 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. 1. This communication is responsive to an Applicant's Amendment filed on November 22, 2010, The allowed claim(s) is/are 49-75. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). b) ☐ Some* c) ☐ None of the: a) 🔯 All 1. T Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. \(\overline{\text{Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). * Certified copies not received: _____. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. | Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. X Examiner's Amendment/Comment Paper No./Mail Date 4. ☐ Examiner's Comment Regarding Requirement for Deposit 8. X Examiner's Statement of Reasons for Allowance of Biological Material 9. ☐ Other .

EXAMINER'S COMMENT

An Applicant's Amendment filed on November 11, 2010 has been entered. Claims 1-48
have been canceled; and claims 55-75 have been added. Overall, claims 49-75 are pending in
this application.

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance:

Re claim 51, applicant's claimed process for operating a compression ignition engine having an exhaust system comprising a non-filtered substrate monolith, wherein the substrate monolith comprises an arrangement of the Pd catalyst and Pt catalyst components selected from the group consisting of:(a) a first layer comprising the Pt catalyst and a second layer overlying the first layer, which second layer comprising the supported Pd catalyst and at least one base metal promoter; and (b) a Pt catalyst located downstream of the supported Pd catalyst and at least one base metal promoter; is not disclosed or rendered obvious by the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Communication

 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Tu Nguyen whose telephone number is (571) 272-4862.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Thomas E. Denion, can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Tu M. Nguyen/

TMN Tu M. Nguyen

December 8, 2010 Primary Examiner

Art Unit 3748